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Pest management and IPM

In Chapter 1 we gave a brief definition of IPM. It involves integrating three different types of control options – the mainstays being biological and cultural controls with chemical controls used only as support tools, never the primary control option. Biological control may involve pathogens (viruses or bacteria), parasites (other insects or nematodes) or predators (primarily other insects and mites as well as larger mammals and birds). In most cases the biological control agents involved in the IPM described in this book are naturally occurring (usually native) species. They include generalist predators that will readily accept native and exotic species of pests as prey, specialist parasitic species that have a narrow host range and parasitoids.

It may seem surprising but often it is not initially possible to fill in the ‘Pest’ column for any particular farm. That is, the farmer or agronomist is not able to say what range of pests they are trying to combat on their farm. Usually the approach to pest control is to use broad-spectrum insecticides and therefore such specific information has not been required. This is a stumbling block to adoption of IPM and is the first task for those wanting to implement an IPM strategy. The full range of pests may not be known for many years after such a decision has been made and so completing such an apparently simple task is not as straightforward as it may seem.

The pest spectrum will often increase once broad-spectrum insecticides are taken out of the equation, but that does not mean that pest problems will necessarily increase. Whether pest problems become worse or not will depend upon many local factors and especially the relative numbers of pests to beneficials. For example, where there is a long-term crop (such as lucerne or pasture) that has